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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,215	12/21/2001	Ryoma Oami	Q67860	9094

7590 07/05/2005

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EXAMINER

VO, TUNG T

ART UNIT PAPER NUMBER

2613

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/024,215

Applicant(s)

OAMI, RYOMA

Examiner

Tung Vo

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20, 23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Peak (US 5,847,766) as set forth in the previous Office Action dated 01/14/2005 and the discussion below.

Re claim 20, Peak discloses all limitations as set forth in the previous Office Action dated 01/14/2005 and further teaches wherein a constant which can make a variation in quantization fineness among sections is used when the target bit number is calculated (col. 3, lines 31-43, e.g. K1 and K2) which can make a variation in quantization fineness among sections is used (col. 6, lines 45-col. 7, line 10) when the target bit number is calculated (col. 6, lines 16-24, e.g. the target bits belonging to a macroblock having a macroblock classification Mc and a block variance classification Bv is expressed $TB[Mc][Bv]$, which is computed by the following third equation (3) as shown in col. 6).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 2613

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryoo (US 5,990,957) in view of Sun et al. (US 5,790,196) as set forth in the previous Office Action dated 01/14/2005 and the discussion below.

Claims 1-24, the combination of Ryoo and Sun teaches all limitations as set forth in the previous Office Action dated 01/14/2005 and Sun further suggests calculating an uncoded VOP allocation bit number that is the total number allocation bits for uncoded VOPs in a certain period of time based on allocatable bit number information indicating the total number of allocatable bits for the VOPs in a certain period of time and the number of generated bits for the encoded VOPs based on the predictive area calculating parameter... (col. 3, lines 14-30, e.g. each object maintains its own set of parameters. With these parameters, an initial target bit estimate is made for each object after a first frame is encoded. Based on output buffer fullness, the total target is adjusted and then distributed proportional to the amount of header bits used in the previous corresponding object. Based on the new individual targets and second order model parameters, appropriate quantization parameters can be calculated for each video object; wherein T Total bit count including texture, shape, motion and header bits (all Vos). In the event that $s > 0$, the total target, T , is distributed proportional to the header information of the previously coded frame; and a difference between the actual number of header bits used for all objects in a previous frame and the total number of target bits available for those objects in an instant frame). Furthermore, Sun suggests temporal variations based on the history of the area data (in the applicant's specification describes that the size of the object is area) (col. 8, lines 64-68, e.g. mean absolute difference for current VO after motion compensation $X1[i]$, $X2[i]$ First and

Art Unit: 2613

second order complexity measures $Q[i]$ Quantization parameter for i th VO $N_{\text{skip_post}}$ Number of frames to skip according to post-frame skip $N_{\text{skip_pre}}$ Number of frames to skip according to pre-frame skip). Therefore, the claimed features are unpatentable over the combination of Ryoo and Sun.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 571-272-7340. The examiner can normally be reached on Monday-Friday.

Art Unit: 2613

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tung Vo
Primary Examiner
Art Unit 2613